

## The Atmosphere

### *Function*

- contains the oxygen we need to breathe
- protects us from the sun's harmful rays and space materials (rocks)

### *Composition*

- nitrogen
- oxygen
- particles (dust dirt smoke)
- water (water droplets, snow, ice and water vapor)

### *Pressure*

Gravity holds the atmosphere in place

As altitude increases pressure decreases

### *Temperature*

High percentage of gas= warm

Low percentage of gas= cooler

The **atmosphere** is divided into five layers. It is thickest near the surface and thins out with height until it eventually merges with space.

- 1) The **troposphere** is the first layer above the surface and contains half of the Earth's atmosphere. Weather occurs in this layer.
- 2) Many jet aircrafts fly in the **stratosphere** because it is very stable. Also, the ozone layer absorbs harmful rays from the Sun.
- 3) Meteors or rock fragments burn up in the **mesosphere**. Coldest layer.
- 4) The **thermosphere** is where the space shuttle

orbits. It is the warmest layer

5) The atmosphere merges into space in the extremely thin **exosphere**. This is the upper limit of our atmosphere.

6) The **ionosphere** is part of the mesosphere and thermosphere. It contains the auroras and reflects AM radio waves.

[http://www.hickerphoto.com/data/media/30/aurora-borealis\\_428.jpg](http://www.hickerphoto.com/data/media/30/aurora-borealis_428.jpg)

[www.windows.ucar.edu/tour/ link=/earth/Atmosphere/layers.html](http://www.windows.ucar.edu/tour/link=/earth/Atmosphere/layers.html) - 14k -

<http://images.google.com/imgres?imgurl=http://www.vtaide.com/png/images/atmosphere.jpg&imgrefurl=http://www.vtaide.com/png/atmosphere.htm&h=600&w=800&sz=30&hl=en&start=2&um=1&tbnid=tB6CHcnNaQGXzM:&tbnh=107&tbnw=143&prev=/images%3Fq%3Dlayers%2Bof%2Bthe%2Batmosphere%26svnum%3D10%26um%3D1%26hl%3Den%26client%3Dsafari%26rls%3Den%26sa%3DN>